Remarks/Arguments

In the Non-Final Office Action dated April 26, 2010, it is noted that claims 1-4 and 6-13 are pending in this application; that the Information Disclosure Statement submitted by Applicants on March 19, 2010 has been found to be in compliance with the patent regulations and have been considered by the Examiner; that claims 1-4 and 6-13 stand rejected under 35 U.S.C. §103.

By this response, the claims have been amended predominately to conform the recitation of certain terms to their respective antecedent. For example, claim 1 has been amended to indicate the source of the information frame; claims 1 and 8 have been amended to indicate that the routing is along at least the at least one path identified by the identifier; claims 1, 8, 12 and 13 have been amended to refer to the "wired network;" claims 1-2, 4, 6-8, 10-11 and 13 have been amended to refer to the "at least one information frame;" claim 3 has been amended to refer to the "at least one mobile terminal user;" and claim 8 has also been amended to include a preamble that defines the networking environment in a manner similar to the preamble of claim 1. The amendments are believed to be supported at least by the original claim set as well as by the original specification. No new matter has been added to these claims.

Cited Art

The following references have been cited and applied in the present Office Action: U.S. Patent Application Publication No. 2002/0191572 to Weinstein et al. (hereinafter referenced as *"Weinstein"*); U.S. Patent 7,088.714 to Athreya (hereinafter referenced as *"Athreya"*); and U.S. Patent Application Publication No. 2002/0067729 to Fukuda et al. (hereinafter referenced as *"Fukuda"*).

Rejection of Claims 1-4 and 6-13 under 35 U.S.C. §103

Claims 1-2, 4 and 6-13 stand rejected under 35 U.S.C. §103 as unpatentable over Weinstein in view of Athreya. Claim 3 stands rejected under 35 U.S.C. §103 as unpatentable over Weinstein and Athreya in view of Fukuda. These rejections are respectfully traversed.

None of the references teach, show, or suggest the claimed limitations of,

> "associating with the received at least one information frame
> an identifier that identifies at least one path through the wired
> network having a transmission capability sufficient to provide the
> determined QoS level/service level, wherein the identifier includes
> a Virtual Local Area Network (VLAN) number; and
>
> routing the at least one information frame in the wired network
> along at least the at least one path identified by the associated
> identifier"

as defined in independent claim 1 and presented similarly in independent claim 8.

Weinstein appears to disclose a wireless and wired LAN networking environment.
According to Weinstein at paragraph [0040], the conventional virtual LAN or VLAN employs a
VLAN ID as specified by the IEEE 802.1Q standard. There is no teaching, showing, or
suggestion by Weinstein that the VLAN ID or any other identifier, which includes the VLAN ID
and identifies the path through the network, *identifies at least one path through the wired
network.* Moreover, there is no teaching or suggestion in Weinstein that the VLAN ID or any
other identifier, which includes the VLAN ID and identifies the path through the network, is
based upon QoS levels so that the path through the network that is identified by the identifier is
sufficient to provide the determined QoS level/service level.

It is clear that Weinstein's VLAN ID is not associated with a path identification and not
based on providing a QoS service level by the path through the network. In paragraphs [0062]
and [0063], Weinstein states that the VLAN ID is used to tag traffic as belonging to a particular
VOLAN. In other words, the VLAN ID of Weinstein is employed to show the association
between a packet and its LAN of origin. The VLAN ID does not indicate a network path at all
and it is <u>not</u> included in or with an identifier that identifies the path through the wired network.

Weinstein's VLAN tagging information is said to be lost in a larger network
implementation and is replaced by Multi-Protocol Label Switching (MPLS) with its Label
Switched Paths (LSP). *See Weinstein at paragraphs [0063]-[0066].* According to Weinstein at
paragraph [0067], a packet is tagged with a label that is apparently related to a label switched
path (LSP) "between the ingress and egress points" for the MPLS domain. Even if one were to
assume *arguendo* that Weinstein's LSP identifies a network path, an assumption which
Applicants neither agree with nor acquiesce to, there is no teaching or suggestion in Weinstein
that the LSP tag "*identifies at least one path through the wired network having a transmission*

capability sufficient to provide the determined QoS level/service level" and that the LSP tag "*includes a Virtual Local Area Network (VLAN) number,*" as defined in the claims. The latter condition appears to be an impossible situation given that Weinstein has already admitted in paragraphs [0063]-[0065] that MPLS and the LSP tagging was being used because the larger networking environment caused the VLAN ID in layer 2 from the smaller networking environment to be lost entirely.

Athreya appears to utilize VLAN tagging in his networking system. The VLAN ID in Athreya is described in the specification and shown in the figures to be assigned to indicate a logical interface for the packet. *See Athreya at col. 1, lines 39-52, at col. 5, lines 2-21, and at col. 9, lines 61-67.* Athreya also describes and shows that VLAN tagging can be performed based on the data network from which the packet originates, similar to Weinstein. *See Athreya at col. 1, lines 53-65.* Finally, Athreya appears to describe an additional feature of this latter form of VLAN tagging in that the identification of the VLAN of origin is useful in monitoring data flows to insure adherence to data priorities and committed information rates and the like. *See Athreya at cols. 11-12.*

To be sure, none of these instantiations of the VLAN ID tagging for packets by Athreya remotely suggest an identifier that "*identifies at least one path through the wired network having a transmission capability sufficient to provide the determined QoS level/service level,*" as defined in Applicants' independent claims. Even though the latter flow-based VLAN tagging of Athreya have a suggestion of relating to a form of quality of service, they all lack the identification of the actual path through the network. Obviously, the former VLAN tagging scenarios of Athreya have no stated relationship to quality of service and they do not identify a network path since they simply define a logical interface in the network. Thus, the VLAN taggings in Athreya are merely interface or origination based and not related in any way to a path through the network, and Athreya's VLAN tags are not in any way included as part of any identifier that "*identifies at least one path through the wired network having a transmission capability sufficient to provide the determined QoS level/service level,*" as defined in the independent claims.

For all the reasons above, the combination of Athreya and Weinstein fail to teach, show, or suggest all the limitations of the independent claims and the claims dependent thereon.

It should also be noted that, since the VLAN ID in Weinstein is lost and since MPLS is employed in its place, the combination of Athreya and Weinstein is improper and ill-considered.

7

Athreya proposes to use VLAN tagging alone. Athreya's VLAN tagging is proposed by the USPTO for combination with Weinstein. Yet, as discussed previously, Weinstein clearly states that the VLAN ID is lost and that MPLS – a technique completely unrelated to VLAN tagging and VLAN IDs – is used instead. If Athreya is combined with Weinstein, then Athreya's VLAN tags will be similarly lost in Weinstein's networks and thus would be replaced by the MPLS LSPs. The combination of references will not operate in the manner proposed by the USPTO and the combination still fails to teach all the claimed limitations.

      Whether applied to claim 3 as proposed by the Office Action or used as part of the combination of references for all the other claims, Fukuda does not cure the defects described above in the teachings of Weinstein and Athreya. Even if the teachings of Fukuda described on page 12 of the present Office Action are assumed to be correct, an assumption which Applicants neither agree with nor acquiesce to, there is no teaching or suggestion in Fukuda to cure the defects in the combined references as they are said to relate to claims 1 and 8. Thus, the combination of Athreya, Fukuda, and Weinstein do not teach, show, or suggest all the limitations defined in independent claim 1 and dependent claim 3.

      In light of all the remarks above, it is submitted that the limitations of independent claims 1 and 8 and the claims dependent thereon would not have been obvious to a person of ordinary skill in the art upon a reading of Weinstein, Athreya and Fukuda, either separately or in combination. Thus, it is believed that claims 1-4 and 6-11 are allowable under 35 U.S.C. §103. Withdrawal of this rejection is respectfully requested.

Conclusion

In view of the foregoing, it is respectfully submitted that all the claims pending in this patent application are in condition for allowance. Entry of this amendment, reconsideration of this application, and allowance of all the claims are respectfully solicited.

Respectfully submitted,

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